

REMARKS

Applicant appreciates the Examiner's finding that Applicant's prior remarks are persuasive and the associated withdrawal of the prior claim rejections and the continuing non-final review of the application. Applicant has carefully considered the references that are newly cited in the Office Action and submits that the pending claims are patentable for at least the reasons explained below.

1. Status of Claims

Claims 1-3, 7, 8, 15, 16, 19, 20, and 29 stand rejected under 35 U.S.C. §103(a) as unpatentable over PCT Published Application No. WO 00/74350 to Rasmusson et al. (Rasmusson) in view of U.S. Pat. No. 6,879,600 to Jones et al. (Jones).

Claims 9, 10, 21, 22, 27, and 28 stand rejected under 35 U.S.C. §103(a) as unpatentable over Rasmusson in view of U.S. Pat. No. 7,181,252 to Komsí (Komsí).

Claims 12-14 stand rejected under 35 U.S.C. §103(a) as unpatentable over Rasmusson in view of U.S. Publ. Pat. No. 2002/0065045 to Kim (Kim).

To expedite prosecution, the previously presented independent Claims 3 and 15 have been amended to depend from Claims 9 and 21, respectively. Moreover, Claims 1, 2, 27, and 28 have been canceled. These amendments have been made without prejudice to the filing of a continuation or divisional application.

2. Independent Claims 9, 10, 21, and 22 are patentable over Rasmusson in view of Komsí:

A) Independent Claim 9

Claim 9 recites, *inter alia*, "a processor that is configured to convolutionally encode the second information for transmission by the cellular transceiver according to a signal processing operation, and to selectively convolutionally encode the first information according to the signal processing operation for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode."

The Office Action concedes on pages 6 and 7 that these recitations are not taught by Rasmusson. However, the Office Action contends on page 7 that "Komsí teaches a processor that is configured to convolutionally encode the second information fro [sic] transmission by the cellular transceiver according to a signal processing operation, and to selectively

convolutionally encode the first information (see col. 6, lines 21-29) according to the signal processing operation for communication by the module based on whether the remote device supports an enhanced communication mode (see col. 6, lines 11-15)." The cited sections of Komsí are shown below with emphasis added for convenience of reference,:

In this regard, the mobile station can be capable of operating with one or more air interface standards, communication protocols, modulation types, and access types. For example, the mobile station may be capable of operating in accordance with wireless communication protocols IS-136, GSM, and IS-95 (CDMA). Some narrow-band AMPS (NAMPS), as well as TACS, mobile terminals may also benefit from the teaching of this invention, as should dual or higher mode phones (e.g., digital/ analog or TDMA/CDMA/analog phones). (Komsí, col. 6, lines 6-15, emphasis added)

It is understood that the controller 50 includes the circuitry required for implementing the audio and logic functions of the mobile station. For example, the controller may be comprised of a digital signal processor device, a microprocessor device, and various analog to digital converters, digital to analog converters, and other support circuits. The control and signal processing functions of the mobile station are allocated between these devices according to their respective capabilities. The controller thus also includes the functionality to convolutionally encode and interleave message and data prior to modulation and transmission. The controller can additionally include an internal voice coder (VC) 50A, and may include an internal data modem (DM) 50B. (Komsí, col. 6, lines 16-29, emphasis added)

Komsí therefore discloses that the mobile station can operate with one or more cellular air interface standards and communication protocols (IS-136, GSM, IS-95 (CDMA), NAMPS, TACS), and that the controller 50 includes functionality to convolutionally encode messages and data prior to modulation and transmission from the cellular mobile station. In neither the cited sections nor elsewhere does Komsí describe or suggest that the controller 50 or any other circuitry of the cellular mobile station convolutionally encodes messages and data for transmission through a short-range communication module and, much less, by a Bluetooth module in the cellular mobile station. Moreover, nowhere does Komsí describe or suggest that any circuitry selectively convolutionally encodes messages and data for communication by a Bluetooth module in the cellular mobile station based on whether a remote Bluetooth device supports an enhanced communication mode.

Consequently, if the teachings of Rasmusson and Komsí are combined, the combination would not teach or suggest a processor that is configured to convolutionally

encode second information for transmission by a cellular transceiver according to a signal processing operation, and to selectively convolutionally encode first information according to the signal processing operation (which was used for transmission through the cellular transceiver) for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode.

For at least these reasons, Applicant submits that the Office Action has not established a *prima facie* case of obviousness of Claim 9 because Rasmusson and Komsí do not teach or suggest all the recitations of Claim 9. Consequently, Claim 9 is patentable over Rasmusson in view of Komsí.

B) Independent Claim 10

Independent Claim 10 recites, *inter alia*, "a processor that is configured to interleave the second information over time for transmission by the cellular transceiver according to a signal processing operation, and to selectively interleave the first information over time according to the signal processing operation for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode."

The Office Action concedes on page 8 that these recitations are not taught by Rasmusson. However, the Office Action contends on page 8 that "Komsí teaches a processor that is configured to interleave the second information fro [sic] transmission by the cellular transceiver according to a signal processing operation, and to selectively interleave the first information (see col. 6, lines 21-29) according to the signal processing operation for communication by the module based on whether the remote device supports an enhanced communication mode (see col. 6, lines 11-15)." Accordingly, the Office Action cites to the same sections of Komsí shown above that are relied upon as basis to reject Claim 9.

However, as described above, the cited sections of Komsí disclose that a cellular mobile station interleaves messages and data prior to transmission according to cellular air interface standards and communication protocols. In neither the cited sections nor elsewhere does Komsí describe or suggest that the controller 50 or any other circuitry of the mobile station interleaves messages and data for transmission through a short-range communication module and, much less, by a Bluetooth module in the cellular mobile station. Moreover,

nowhere does Komsí describe or suggest that any circuitry selectively interleaves messages and data for communication by a Bluetooth module in the mobile station based on whether a remote Bluetooth device supports an enhanced communication mode.

Consequently, if the teachings of Rasmusson and Komsí are combined, the combination would not teach or suggest a processor that is configured to interleave second information for transmission by a cellular transceiver according to a signal processing operation, and to selectively interleave first information according to the signal processing operation (which was used for transmission through the cellular transceiver) for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode.

For at least these reasons, Applicant submits that the Office Action has not established a *prima facie* case of obviousness of Claim 10 because Rasmusson and Komsí do not teach or suggest all the recitations of Claim 10. Consequently, Claim 10 is patentable over Rasmusson in view of Komsí.

C) Independent Claim 21

Claim 21 is a method that corresponds to the wireless terminal of Claim 9, and is therefore submitted to be patentable for at least the reasons explained above for Claim 9.

D) Independent Claim 22

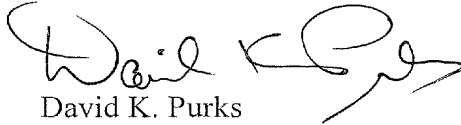
Claim 22 is a method that corresponds to the wireless terminal of Claim 10, and is therefore submitted to be patentable for at least the reasons explained above for Claim 10.

3. Conclusion

In view of the above amendments and remarks, Applicant respectfully requests withdrawal of all objections and rejections and the allowance of all claims in due course. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

In re: William O. Camp, Jr.
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Susan E. Freedman
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